DATASHEET

TELEMETRY RELAY MODULE (TRM)

GETTING CRITICAL MESSAGES TO THE RIGHT PEOPLE

ENHANCED WIRELESS COMMUNICATIONS AND CONNECTIVITY

The Spok® Fusion Telemetry Relay Module (TRM) is a multi-purpose paging receiver capable of outputting messages via its serial port, as well as controlling devices via eight inbuilt relays. The TRM can be used for remote control or telemetry purposes. The unit uses an advanced receiver board that allows it to work in frequency bands of 135MHz-175MHz, 278-286MHz, 448-468MHz, and 929MHz-932MHz synthesised. The advantage to such a system is that there is no limit to the number of TRM units that can be added, and expensive cable runs are unnecessary as everything is enabled over the air.

Previously, RS232/RS485 cables had to be run between paging systems for controlling LED signs. With the TRM, LED signs can be placed anywhere within coverage of the paging system for reliable display of scrolling messages. (See Figure 1 on page 2)

KEY BENEFITS

- Integrate messaging to wireless LED signs
- "Watchdog" to ensure system uptime
- Advanced wireless call point functionality
- Remote control of machines via over-the-air commands
- Intuitive configuration software for system administration

ADVANCED WIRELESS CALL POINT FUNCTIONALITY

Handheld wireless call point transmitters can send real-time messages to the Spok Fusion TRM solution. Subsequently, data output from its RS232 serial port can be integrated to the Spok® system platforms Spok® Messenger as well as the Spok® Fusion Event Management Module (EMM). The advantage of integrating messages with the TRM via either Spok system platform means you can take advantage of their advanced feature sets, such as group messaging, escalations, reporting, and more. (See Figure 2 on page 2)

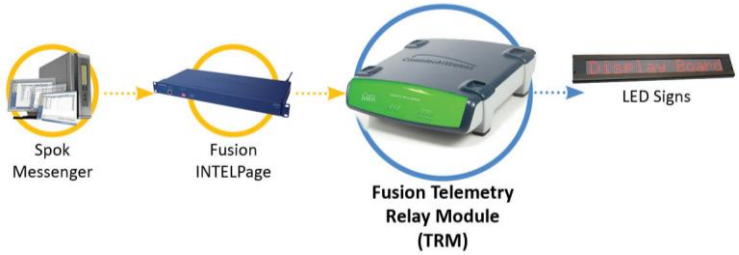
COMMUNICATION SYSTEM UPTIME

By interfacing seamlessly with the Spok Messenger or the Spok Fusion EMM platforms, you can confirm the transmitter is operating correctly. The system can send out a heartbeat message at specific intervals to the Spok® Fusion INTELPage or Spok® Fusion INTELPage IP transmitter on a special cap code not in use by the pagers. The TRM unit picks up this special message and forwards it to a spare RS232 serial port on the Spok Messenger server or the Spok Fusion EMM. From there, it is received back into the system again. In the event the heartbeat message is not received in the appropriate time, the system can notify maintenance personnel via other means of communication (such as email, LED displays, wireless telephones, and SMS) that there may be a problem. (See Figure 3 on page 2)

WIRELESS REMOTE CONTROL USING RELAYS

The TRM has eight onboard relays which can be used to remotely control devices such as motors, lights, or automated switches. Using the TRM, the Spok Messenger and/or Spok Fusion EMM can affect on or off statuses of these devices simply by sending commands over the air to the appropriate TRM. Using Spok Messenger or Spok Fusion EMM advanced "reminder" and "scheduling" functionality, the system is ideal to affect automated on or off status of these devices at a specific date and time. (See Figure 4 on page 2)

FIGURE 1 – REMOTE LED SIGNS



TECHNICAL SPECIFICATIONS

SPOK FUSION TELEMETRY RELAY MODULE*	
Equipment Type	FLEX or POCSAG receiver with RS232 and relay outputs
Supported Input Protocols	FLEX or POCSAG 512, 1200 or 2400 bps
Serial Port	RS232C, 300-57600 baud (default 9600 bps), RJ45
Programming Port	RJ45
Power Supply	12VDC @ 2Amps regulated
Status LED	Power, activity, RS232 TX, relay activity
External Antenna	BNC female 50ohm
Dimensions	255 x 230 x 70 mm / 10 x 8 x 2.7 inches
Weight	700g / 1.5 lb
Operating Temperature	0° C to 50° C (20-90% RH non-condensing)
Storage Temperature	-10° C to 60° C (14° F to 140° F) (10-95% RH non-condensing)
Frequency Range	135MHz - 175MHz, 278 - 286MHz, 448 - 468MHz, 929Mhz-932Mhz synthesized
Approvals	FCC, CE, C-tick, ROHS

*For additional technical/product information, please refer to the product user manual

FIGURE 2 – WIRELESS CALL POINTS

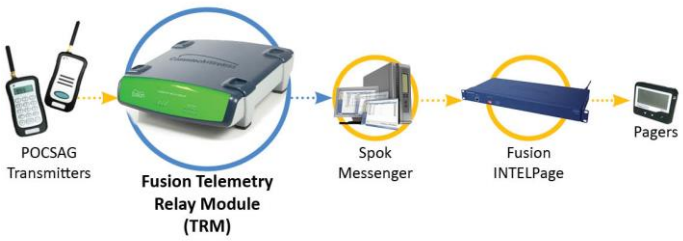


FIGURE 3 – PAGING MESSAGE CONFIRMATION

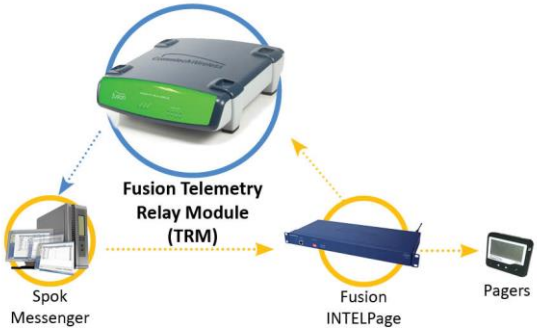
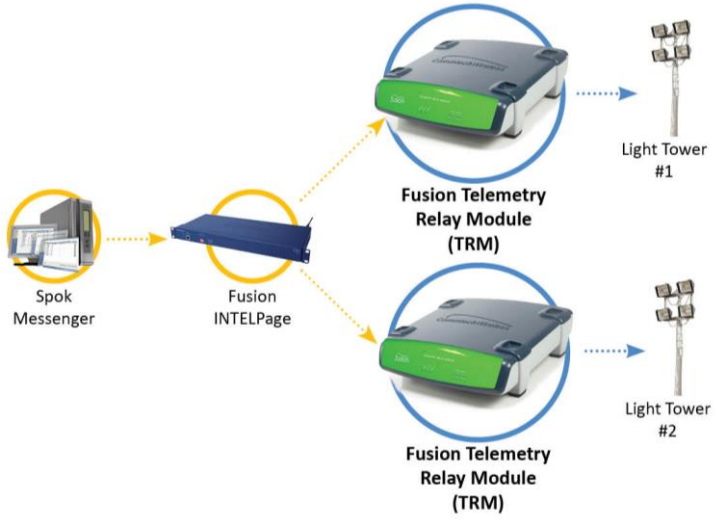


FIGURE 4 – REMOTE CONTROL USING RELAYS



© Spok, Inc. 2009, 2011, 2014 All Rights Reserved. Spok is a trademark of USA Mobility, Inc. Other names and trademarks may be the property of their respective owners.